Gulf of Mexico Harmful Algal Bloom Bulletin

22 February 2005

National Ocean Service

National Environmental Satellite, Data, and Information Service

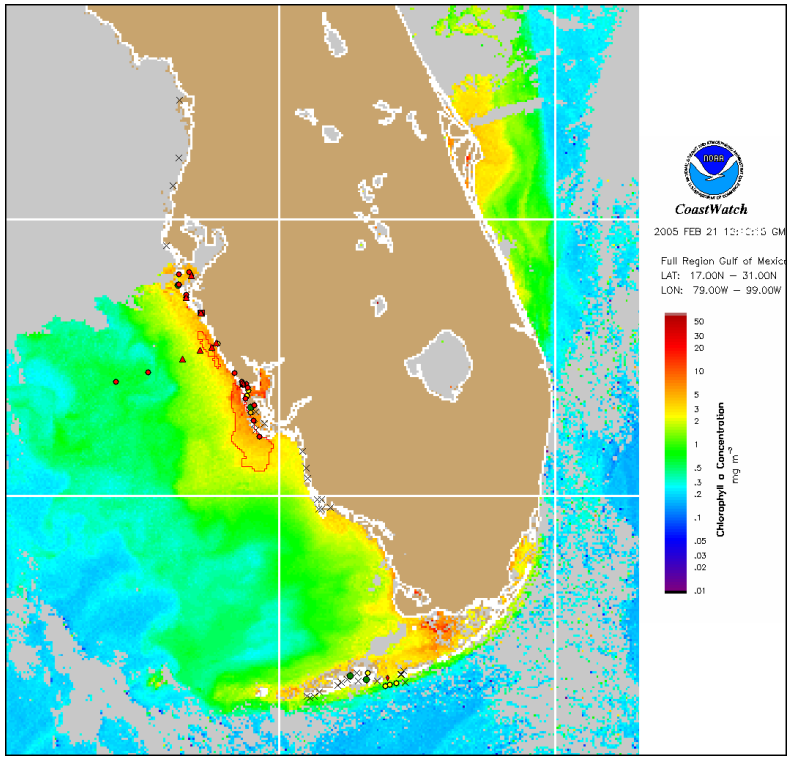
Last bulletin: February 17, 2005

Conditions: A harmful algal bloom has been identified off Sarasota, Charlotte, and northern Lee counties. Patchy low to moderate impacts are expected at the beach through the Wednesday morning with moderate to high impacts through Thursday. A harmful algal bloom as also been identified northwest of Key West. Reports of discolored water are possible.

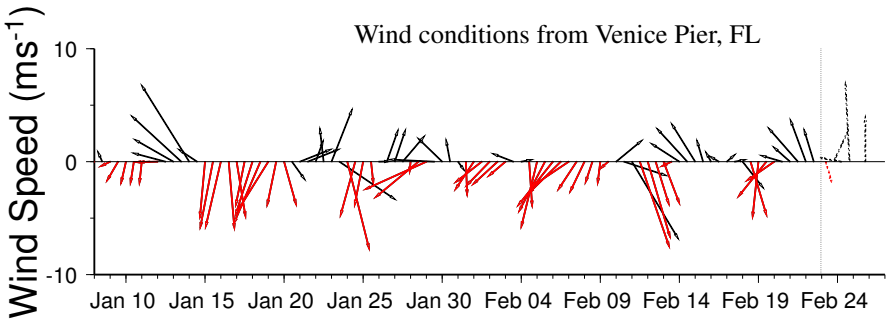
Analysis: The *K. brevis* bloom persists from Sarasota to Sanibel and has continued to move south and offshore. Chlorophyll levels are from a high of 8 μg/L onshore near Venice, 10 - 20 μg/L near Boca Grande and have decreased to <10μg/L offshore. The current bloom extent is alongshore from approximately 27°10'N to 26°8'N, with the southwest offshore extent at 26°10'N 82°18'W. Medium to high concentrations of Karenia have confirmed patchy bloom locations from New Pass to Boca Grande Pass (FWRI, MML). Pine Island and Captiva have low Karenia concentrations. Variable winds through Wednesday morning will maintain bloom location. Southwest and southerly winds from Wednesday afternoon through Thursday will increase liklihood of beach impacts but minimize southward transport.

The bloom located north of the Keys continues to dissipate. Samples from February 8-16 showed no Karenia north of the lower keys and near Big Pine (MML). A patchy section of the bloom still appears northwest of Key West (24°36'N, 81°53'W) with a high chlorophyll of 8.3 μg/L. Great White Heron kills were reported at Key West last week (Wildlife Rescue of the Florida Keys). Easterlies and southeasterlies will continue to promote dissipation.

-Fenstermacher & Fisher



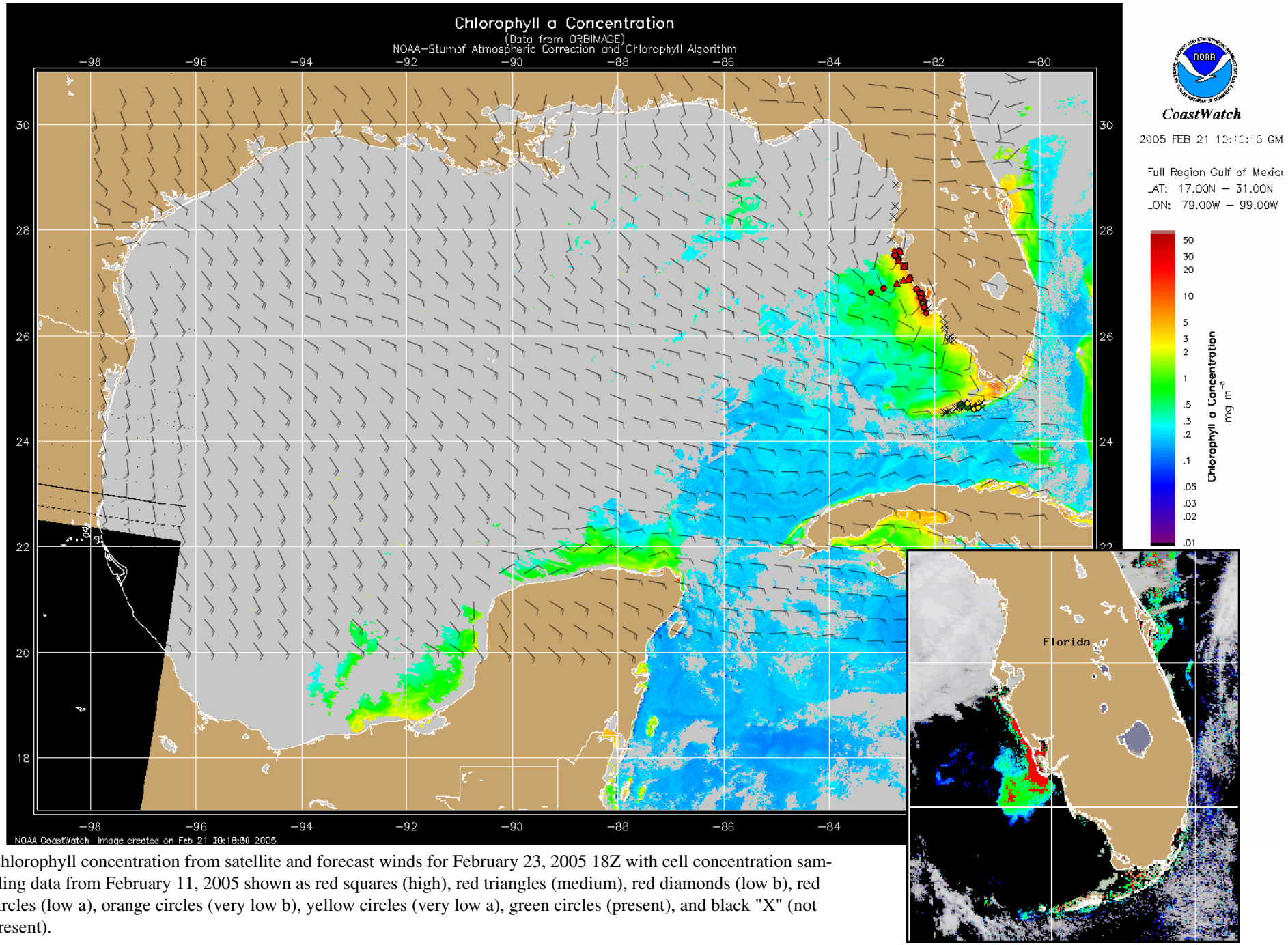
Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from February 11, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

Venice: Variable winds through Wednesday morning (5-10 kts; 3-5 m/s) followed by southwest winds in the afternoon. Strong southwest to southerly winds through Thursday (10 kts; 5 m/s).

Sand Key: Strong easterlies and southeasterlies through Thursday (10-15 kts; 5-8 m/s).



Chlorophyll concentration from satellite and forecast winds for February 23, 2005 18Z with cell concentration sampling data from February 11, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis and image for interpretation)

Wind conditions from Sand Key, FL